

What is Video

- ▶ A series of pictures
- ▶ Multiple exposures per second with sound
- ▶ The number of exposures is called the “Frame Rate”

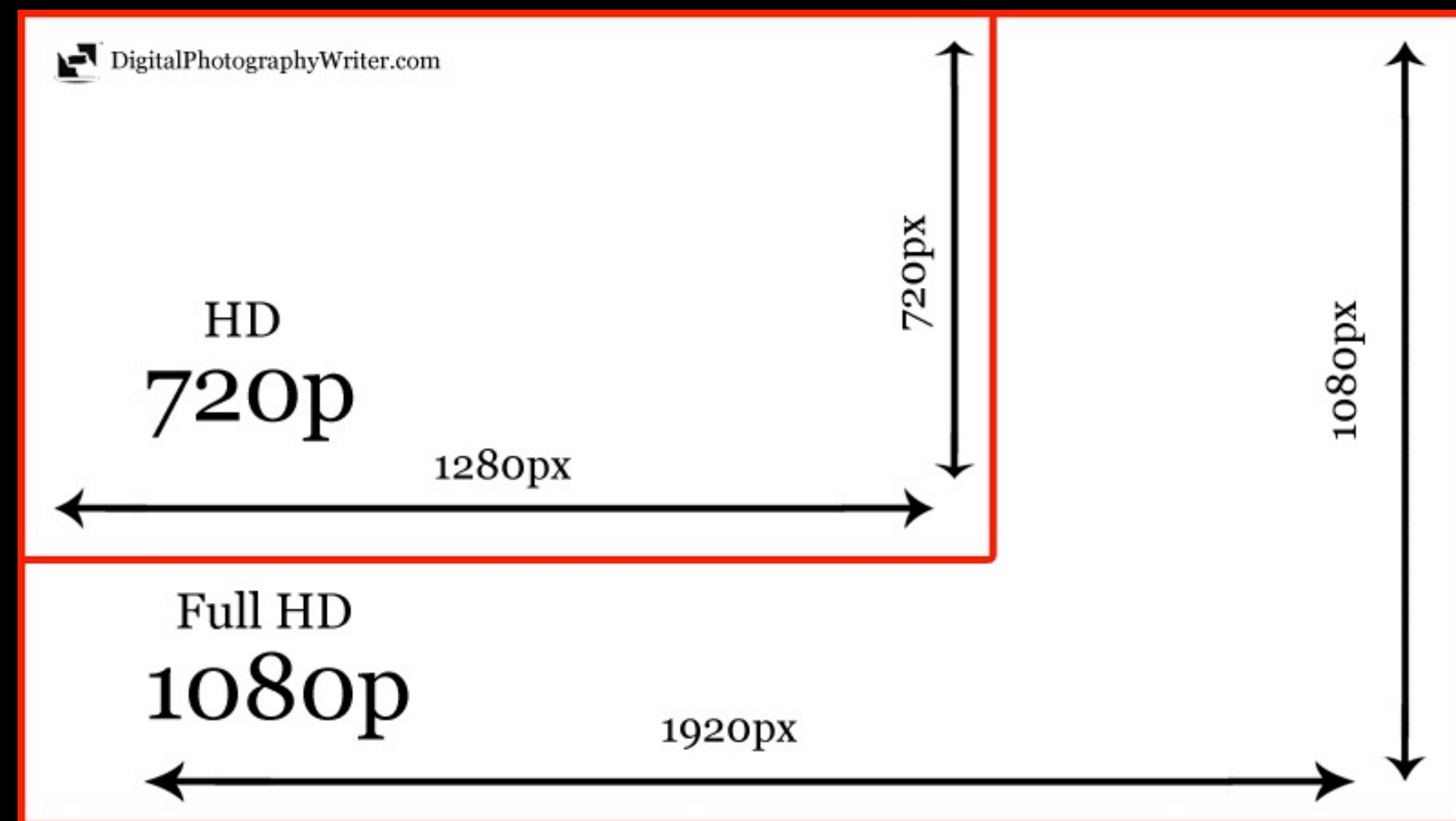
24P, 30P 60P



What is Video

1080
vs
720

- ▶ 1080 = 2x resolution of 720



Resolution

Canon

Recommendation

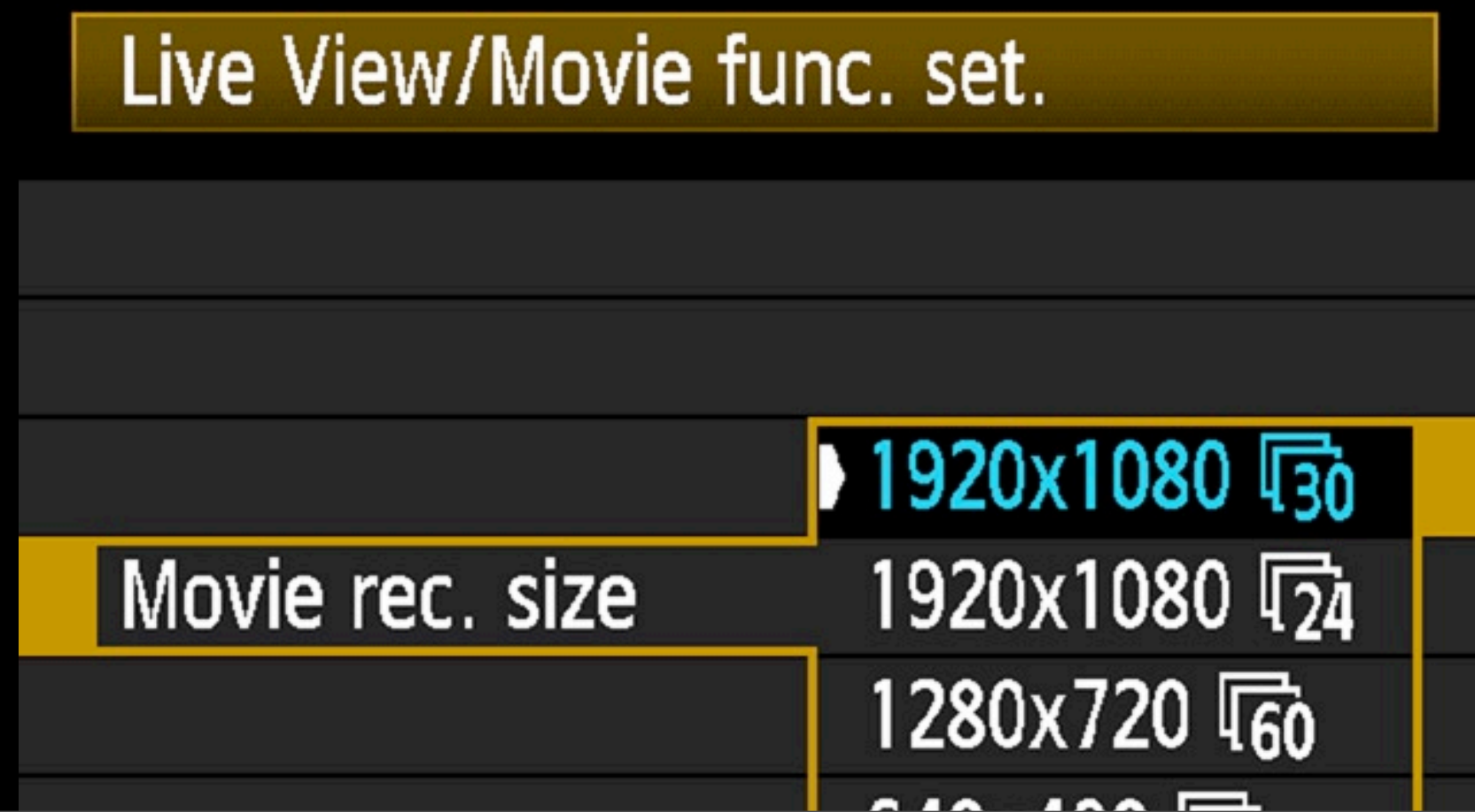
Shoot @ 1080, 24P

Checklist



Before You Start!

- ▶ Reset the camera!!!!
 - You don't know who had it last or how they set it.
 - ▶ Set Dial setting to M - Manual
 - Always shoot in Manual
- * 60D is set to the video icon
- ▶ Double check your resolution and frame rate



Exposure

- ▶ Aperture
 - Opening of the lens iris
- ▶ Shutter Speed
 - Length of exposure
- ▶ ISO
 - Sensitivity of Sensor



Exposure

“STOP”

- ▶ F Stop
 - Measurement of Aperture
 - 1.4, 2, 2.8, 4, 5.6, 8, 11, 16, 22...
 - Full stop = 2x or 1/2 as much light
- ▶ ISO
 - 100, 200, 400, 800, 1600
 - Same relationship as F stops
- ▶ Shutter Speed
 - 1/50, 1/100, 1/200
 - Double and half again
 - Affects look of motion

When exposure value increases by 2x or decreases by 1/2 it is called a “stop” whether it’s aperture, ISO or shutter speed.

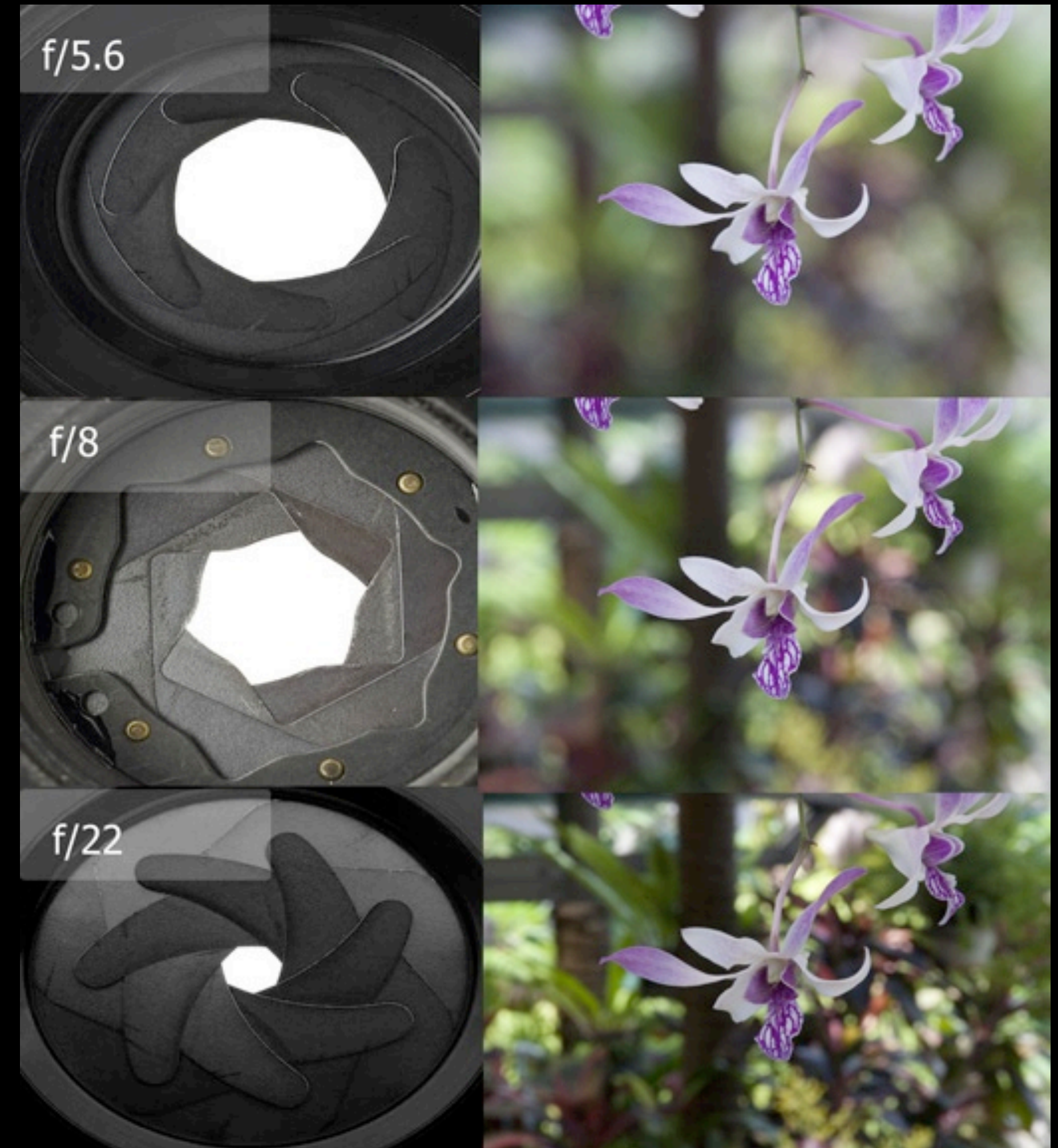
Aperture

Canon

Exposure

- ▶ F Stop
 - Lower F number = Wider opening
 - Wider opening = Shallower “Depth Of Field”
 - How much of frame is in or out of focus
 - DOF can be compressed with “Long” Lens

Smaller Number = Less in focus
Higher Number = More in focus



Focal Length

Canon

Lenses

- ▶ Focal Length
 - Expressed in millimeters (mm)
 - Higher number = Zoomed in more
 - Softens background at higher F stop
 - Lower Number = wider field of view



Maximum Aperture

Canon

Lenses

- ▶ Maximum Aperture
 - Widest that a lens can open
 - Lowest possible F stop
 - “Fast” lenses



Identification

Lenses

- ▶ Lens Identified by Focal length f/#
 - 35mm f/1.4
 - 70-200mm f/2.8
 - 50mm f/1.2



Crop Factor

Canon

Lenses

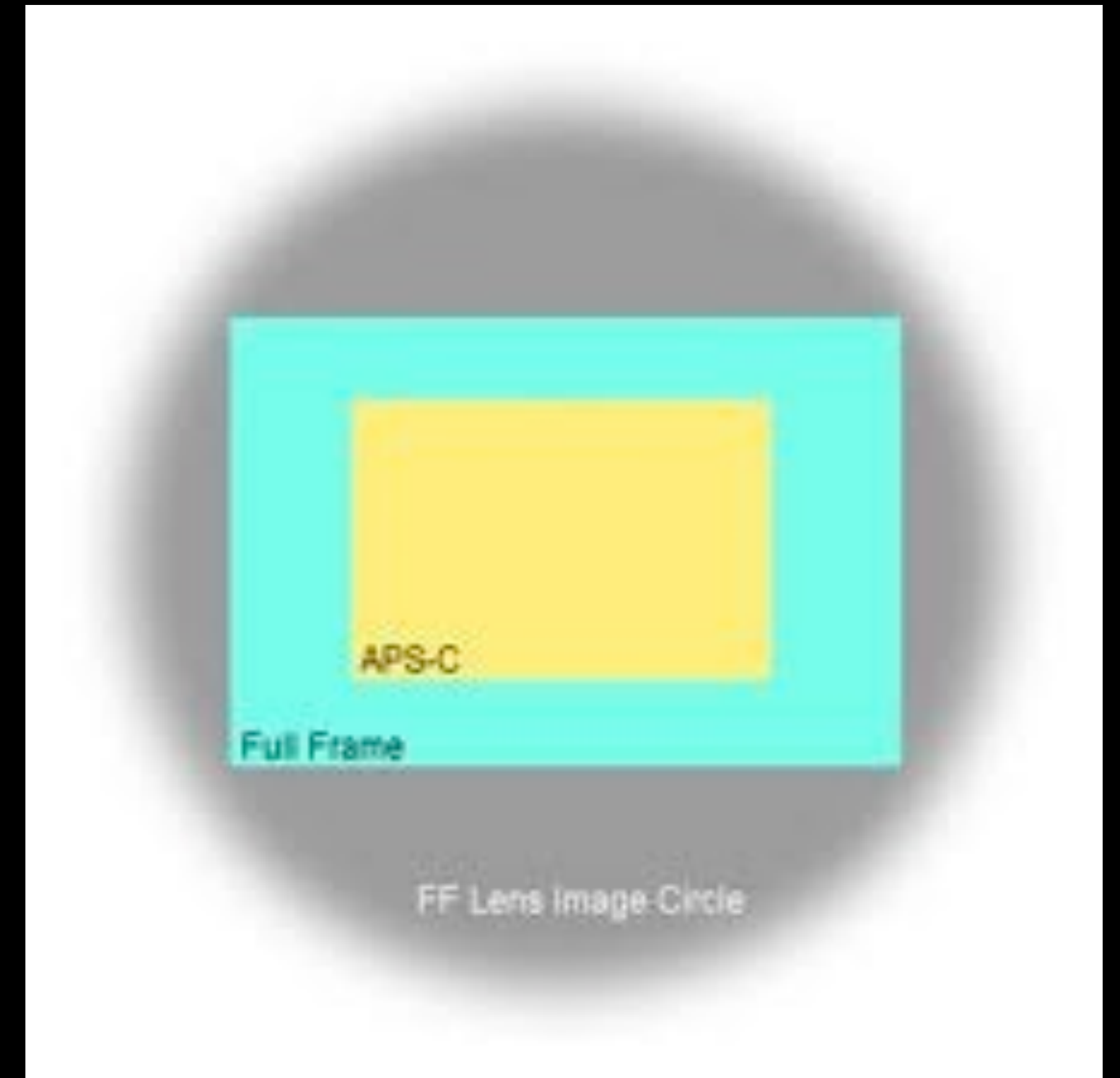
- ▶ Two different sized sensors
- ▶ Full Frame
- ▶ APS C
 - 60% Smaller
 - Creates 1.6x magnification

Full Frame: 100mm = 100mm

APS C: 100mm = 160mm

Full Frame = 5D Mark III

APS-C = 7D, 60D



Aperture

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Exposure

- ▶ Setting Aperture
 - Use dial on back of camera
 - View value in LCD on top of camera

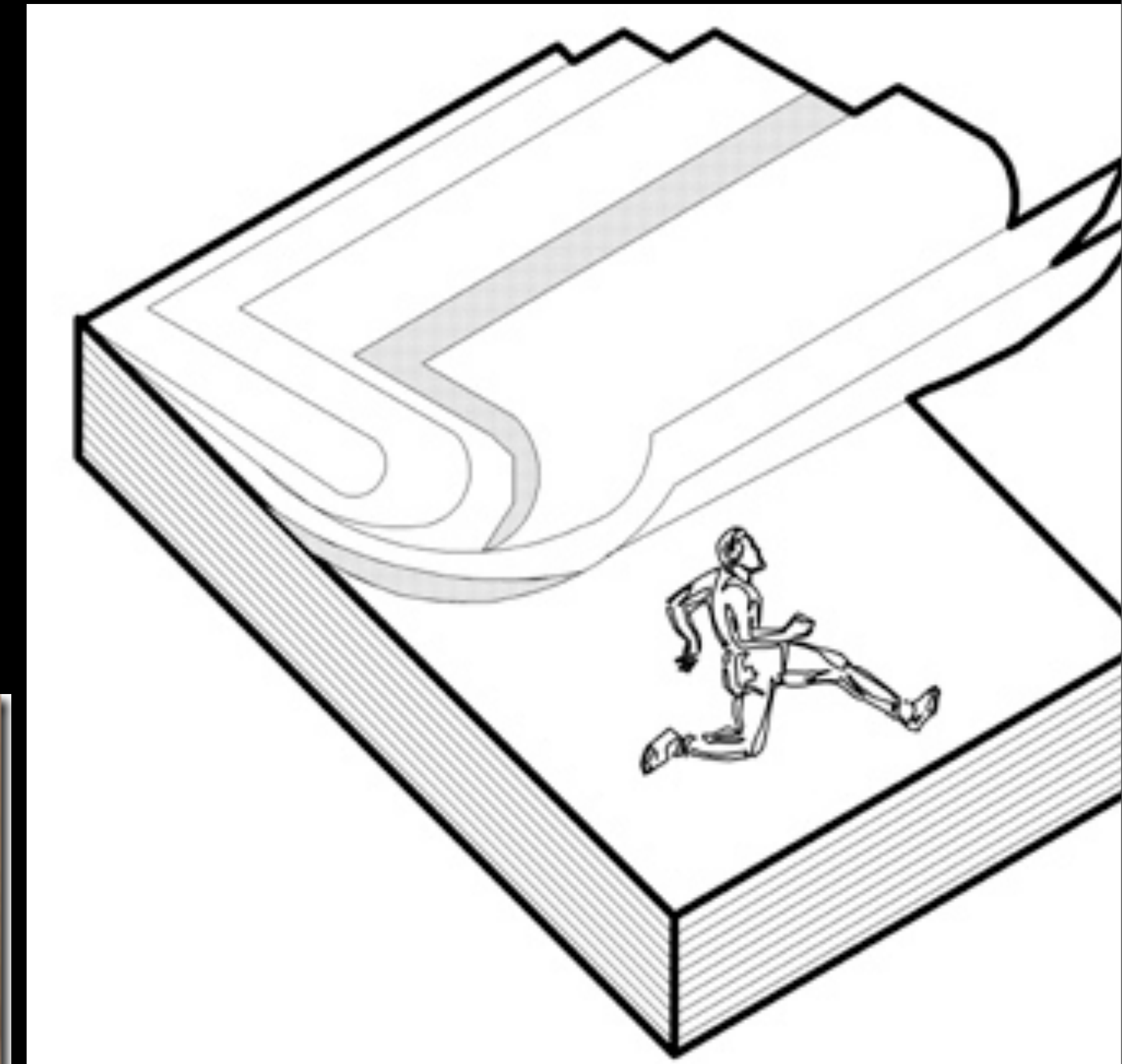


Shutter Speed

Exposure

Canon

- ▶ Shutter Speed
 - High speeds = choppy look
 - Slow speeds = blurry look
 - 2x Frame Rate is ideal



Shutter Speed

Canon

Frame Rate

- ▶ Number of images taken per second
 - Affects “Temporal Motion”
 - Higher speeds look more fluid
 - Better for slowing down fast motion (slo-mo)
 - Lower Speeds look more “Filmic”



24P, 30P 60P

Shutter Speed

Canon

Exposure

- ▶ Shutter Speed
 - High speeds = choppy look
 - Slow speeds = blurry look
 - 2x Frame Rate is ideal

BUT!!!!

- ▶ SLR speeds don't work that way. :-(
 - 24P - 1/40 or 1/50
 - 30P - 1/40 or 1/50
 - 60P - 1/60 or 1/120

- ▶ Setting Shutter
 - Use top dial to adjust setting
 - View value on top screen



ISO



Exposure

- ▶ ISO Speed
 - Higher number = less light needed for exposure
 - Higher ISO = more “noise”

- ▶ Multiples of 16, 8 and 4 work best.
 - 160 has less noise than 100
 - 160, 320, 400, 640, 800, etc



Shutter Speed

Canon

Exposure

- ▶ Setting ISO
 - Press ISO button on top
 - Use top dial to adjust setting
 - Values also displayed on rear LCD



Shutter Speed

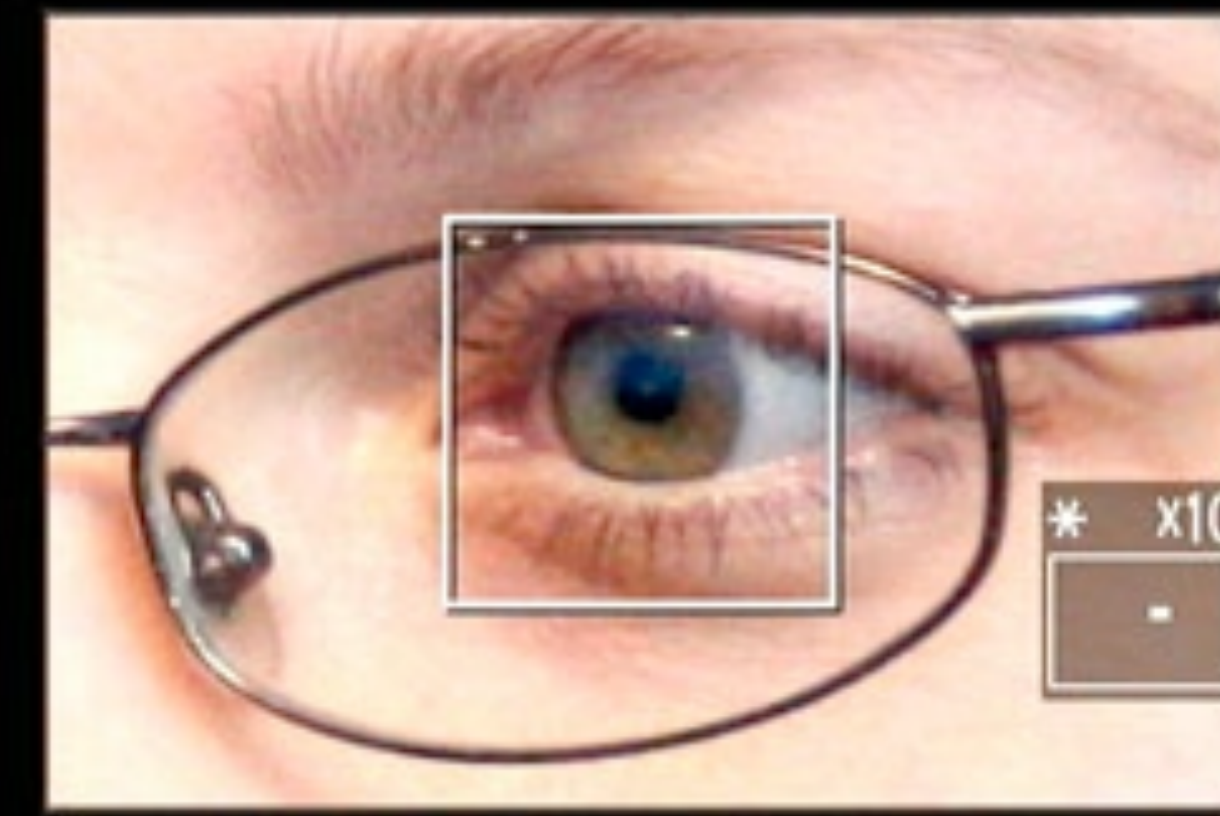
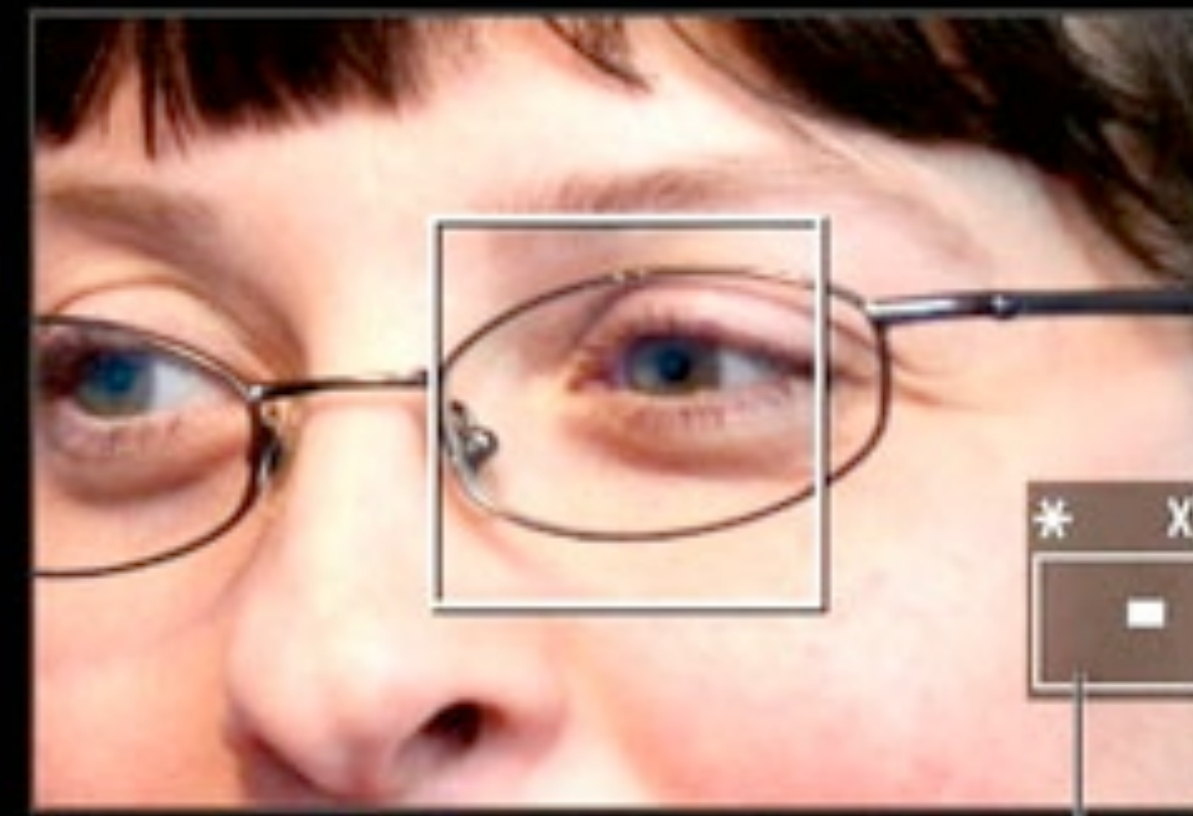
Canon

Focusing

- ▶ Use Manual Focus
 - Make sure lens ring is set to M
 - USE MAGNIFICATION TO CHECK FOCUS
 - You can use AF button in a bind
 - Not traditional video auto focus
 - DO NOT USE WHEN ROLLING



Eyes are the most important thing to keep in focus!



Shutter Speed

Canon

Recording

- ▶ 7D, 60D, 5D Mark III
 - Start Stop Button on back



Audio

- ▶ Record on a separate device if you can
 - Use on board audio as “scratch” audio
 - Synch during editing
- ▶ DO NOT use on camera microphone
 - Picks up sound of camera operation
- ▶ Mini input on camera + manual audio gain



Recap

- ▶ ALWAYS RESET CAMERA
- ▶ ALWAYS SET CAMERA TO MANUAL
- ▶ ALWAYS FOCUS MANUALLY
- ▶ SHOOT AT 1080 24P - recommended
- ▶ SET SHUTTER AS CLOSE TO 2X FRAME RATE AS POSSIBLE
- ▶ USE OFF BOARD AUDIO IF POSSIBLE
- ▶ USE EXTERNAL MIC IF RECORDING AUDIO ON CAMERA

ONE LAST PIECE OF ADVICE

Do not move the camera for no reason!

- ▶ Use a tripod or mono pod
 - Do not shoot hand held unless you absolutely must
 - “Rolling Shutter” makes your shots look wobbly
- ▶ Pan and tilt slowly
 - Rolling shutter effect visible with any camera movement

Ask yourself “What is my motivation for doing a camera movement?”

If you can't answer that quickly and decisively, DO NOT move the camera.